

DEPARTMENT OF PUBLIC WORKS

News Release

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Photovoltaic system to be installed at Līhu'e Civic Center

LĪHU'E – In its quest to becoming increasingly energy self-sufficient, the county has hired a local company to install a photovoltaic (PV) system on the roof of the Pi'ikoi Building at the Līhu'e Civic Center.

Solar Engineering and Contracting was recently awarded a \$379,000 contract to supply and install an 85 kW DC photovoltaic system, which includes a rooftop solar array, a single inverter, and related electrical metering and safety equipment.

The project is scheduled to begin next week, weather permitting, and is expected to be completed at the end of April.

"One of our Holo Holo 2020 initiatives is to incorporate as much renewable energy into county facilities as possible so we are very excited about the start of another PV project," said Mayor Bernard Carvalho, Jr., noting that the PV projects at the Kaiakea fire station and the Waimea Wastewater Treatment Facility are also underway.

"This is a great opportunity for a locally owned company and I am really looking forward to working on this project," said Paul Lucas, owner of Solar Engineering and Contracting.

"Renewable energy is not only good for the environment, but it's also creating jobs for Kaua'i residents. As a small business owner on Kaua'i, I'm very excited about this opportunity and hopefully more to come in the future."

Based on the National Renewable Energy Lab's PV watts calculator, the PV system that will be installed atop the Pi'ikoi Building is expected to produce 114,135 kWh annually. At the February 2011 Schedule P rate of \$0.36131, the energy generated by the system would result in a yearly savings of \$41,238 to the county and ultimately taxpayers.

Savings in subsequent years will depend on the current rate of electricity from Kaua'i Island Utility Cooperative (KIUC), how much kWh is produced by the system, and related demand savings.

In terms of impact to the environment, the PV system will significantly reduce greenhouse gas and carbon dioxide emissions.

It is estimated that 165,495 pounds of carbon dioxide will be prevented from polluting the air annually.

Over a 20-year period, the system will stop the release of carbon dioxide into the atmosphere that's equivalent to the amount released by 267,000 cars driven annually over 5.3 million miles.

Photovoltaic technology has come a long ways since it was first used by the National Aeronautics and Space Administration in the late 1950s. Today's PV systems are equipped with sophisticated calibrated meters and monitoring devices.

The PV system on the Pi'ikoi Building will have devices that provide real time production information including: daily, monthly and yearly production levels in numerical and graphic format; facility load versus PV generation; and system efficiency compared to available sunlight and power produced from an attached weather station.

The system will also enable the county to change the PV production to environmental attributes also known as carbon avoidance, and have an alarm function to alert the county when the efficiency is lower than expected. This information will be accessible via the Līhu'e Civic Center local area network and the county website for public access.

Incorporating renewable energy into county facilities to the greatest extent possible is one of 38 projects that are part of Mayor Carvalho's Holo Holo 2020 vision for Kaua'i, which calls for all organizations, businesses, residents and visitors on Kaua'i to be part of creating an island that is sustainable, values the native culture, has a thriving and healthy economy, cares for all – keiki to kupuna – and has a responsible and user-friendly local government.



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